Application No. 09/751,129
Amendment dated October 21, 2003
Reply to Office Action of September 24, 2003

<u>REMARKS</u>

Claims 1-2, 6-8, 19-23, 25-26, and 29-30 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,455,629 to Sun et al. (hereinafter, "Sun") in view of U.S. Patent No. 5,621,467 to Chien et al. (hereinafter, "Chien"). Claim 1 calls for an apparatus comprising a first block to process a P-type frame in a video bitstream using a first error resilience technique and a second block to process a B-type frame in the video bitstream using a second error resilience technique, wherein the first error resilience technique is different from the second error resilience technique.

However, the Sun reference fails to disclose use of different error resilience techniques across the first and second blocks to process, i.e., a P-type frame and a B-type frame, respectively. Chien merely discloses a spatial error concealment apparatus with different error resiliency for the motion vectors of similar form. There is no teaching by Chien as to applying different error resilience techniques across two different block types (motion vectors). Absent such teaching in Chien, regardless of whether the Sun and Chien references considered together or separately, could result in the claim limitations of claim 1 as a whole, failing to render claim 1 obvious to one ordinarily skilled in the relevant art. Therefore, claim 1 and the claims that depend therefrom are in condition for allowance.

In other words, the Chien reference cannot apply the different values of constants K1-K4 to calculate the directional magnitude correlation measure r_m across without motion vectors (I frames), blocks with forward motion vectors (P frames) and blocks read forward and backward motion vectors (B frames) because the blocks must have motion vectors included of the same type in each of the equations, r_1-r_6. Even if the teachings of Sun and Chien references are combined, there is no different error resilience techniques taught or suggested which could be applied for both P-type frames and in addition, to B-type frames, respectively. Accordingly, there is no teaching as to use of two different error resilience techniques applied across temporal and spatial cases of P-type frames and B-type frames when recording a video bitstream in an efficient manner where error resilience, e.g., before transmission, retransmission or storage is needed. Therefore, even if combined, the teachings in the Sun and Chien references cannot result in an apparatus where a first block to process a P-type frame in a video bitstream using a

first error resilience error resilience technique and a second block to process a B-type frame in the video bitstream using a second error resilience technique which is different than the first error resilience technique.

Claim 10 stands rejected under 35 U.S.C. § 103(a) over Sun in view of Chien and further in view of U.S. Patent No. 6,552,673 to Webb. The article of claim 10 comprising one or more machine-readable storage media containing instructions that when executed enables a processor to receive a video stream having at least a first type of frame and a second type of frame and process the first type of frame using a first error resilience technique and the second type of frame using a second error resilience technique, wherein the first error resilience technique comprises applying resynchronization markers to the video stream at a selected interval and the second error resilience technique comprises applying resynchronization markers at an interval different from the selected interval

However, Webb merely teaches a different recording technique for RVLC for reversible variable length codewords of the type implemented for H.263++ and MPEG-4 standards. This method for RVLC decoding by Webb fails to indicate use of different error resilience techniques for different types of frames wherein the one error resilience technique comprises applying resynchronization markers to the video stream at a selected interval and the other error resilience technique comprises applying resynchronization markers at an interval different from the selected interval. Without this teaching of use of two different error resilience techniques and for two different types of frames with use of two different intervals in which one of the intervals is selected, the Webb reference in combination or separately, with the Sun and Chien references fails to teach or remotely suggest claim 10 limitations as a whole. Accordingly, the Examiner is respectfully requested to reconsider the § 103 rejection of claim 10 as it is deemed to be allowable in light of the remarks presented above.

Claim 19 which stands rejected under 35 U.S.C. § 103(a) over Sun and in view of Chien is allowable for at least the reasons presented above in the context of claim 1. The Sun and Chien references either considered alone or in combination fail to teach or suggest the apparatus of claim 19. In particular, there is no teaching as to an apparatus comprising a first block to

process a P-type frame in an encoded bitstream using a first error concealment technique and a second block to process B-type frame in the encoded video stream using a second error concealment technique, wherein the first error concealment technique is different from the second concealment technique. Absent a specific hint, a teaching, or a suggestion, either alone or together, the Chien reference combined with the Sun reference fails to teach the apparatus of claim 19. Thus, the Examiner is respectfully requested to allow claim 19 and the claims depending therefrom.

Based on the remarks applied to claim 1, claim 10, claim 19, claim 22 limitations are not rendered obvious. Accordingly, a *prima facie* case of obviousness in each instance is not established. The method of claim 22 includes receiving a video stream, performing error resilience on a P-type frame within the video stream using a first technique and performing error resilience on a B-type frame within the video stream using a second type, wherein the first technique is different from the second technique. The Examiner is therefore requested to reconsider the rejection of claim 22 as it is deemed to be in condition for allowance. Likewise, the apparatus of amended claim 27 is also in condition for allowance. The claims that depend from independent claim 23 and 27 are also in condition for allowance because they depend from an allowable independent claim. The Examiner is requested to consider all pending claims.

In view of these remarks and amendments, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

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